


Accordingly, the amendments made to the specification are provided to place the application in idiomatic English, and the claims are amended to place them in better condition for examination.

An early and favorable examination on the merits is earnestly solicited.

Respectfully submitted,
COOPER & DUNHAM LLP

A handwritten signature in black ink, appearing to read "Jay H. Maioli". The signature is fluid and cursive, with the first name "Jay" and last name "Maioli" clearly distinguishable.

Jay H. Maioli
Reg. No. 27, 213

JHM:gr

VERSION WITH MARKINGS TO SHOW CHANGES MADE
IN THE ABSTRACT OF THE DISCLOSURE

Please amend the Abstract by rewriting same to read as follows.

In a data communication method and apparatus, message communication within a complex object is executed in the same execution thread, and a history of message communication is updated to indicate message communication from the same execution thread. In a message communication directed from within a complex object to an external object, a message or messages are temporarily stored on a destination-by-destination basis. When message processing [completes] is completed, the history of message communication is checked, so that the stored message or messages are transmitted in a single message communication operation.

IN THE CLAIMS

Please amend claims 2-10 and 12-20 by rewriting same to read as follows.

--2. (Amended) [A] The data communication method according to Claim 1, wherein said complex object is constituted of a plurality of objects which can be invoked in a manner equivalent to a function call which does not cause a context switch.

--3. (Amended) [A] The data communication method according to Claim 1, further comprising the step of (c) creating a history of message [communication] communications by the object within said complex object,

wherein said step of (b) sending determines whether said complex object and said independent object have entered said predetermined relationship based on said history of message [communication] communications.

--4. (Amended) [A] The data communication method according to Claim 1, further comprising the step of (c) creating a history of message [communication] communications by the object within said complex object,

wherein said step of (b) sending sends the one or more stored messages in a single operation [if] when said history of message [communication] communications is indicative of a message communication from a different execution thread when the object within said complex object exits execution.

--5. (Amended) [A] The data communication method according to Claim 1, wherein said step of (a) temporarily storing controls message storing in accordance with a relationship between said complex object and said independent object.

--6. (Amended) [A] The data communication method according to Claim 1, wherein said step of (a) temporarily storing controls message storing in accordance with [the] a status of said independent object.

--7. (Amended) [A] The data communication method according to Claim 1, wherein said step of (a) temporarily storing controls message storing on a destination-by-destination basis [if] when the one or more stored messages are directed from the object within said complex object to a plurality of independent objects external to said complex object.

--8. (Amended) [A] The data communication method according to Claim 1, further comprising the step of (d) determining whether to store or immediately send the one or more messages in accordance with a relationship between said complex object, which sends the

one or more messages, and said independent object, which receives the one or more messages, with respect to a scheduling priority level and an interrupt priority level of the respective execution threads thereof.

--9. (Amended) [A] The data communication method according to Claim 1, wherein said system constituted of a plurality of objects is an object-oriented operating system constituted of a plurality of concurrent objects.

--10. (Amended) [A] The data communication method according to Claim 1, wherein said system constituted of a plurality of objects is one of an application program [or] and a device driver constituted of a plurality of concurrent objects.

--12. (Amended) [A] The data communication apparatus according to Claim 11, wherein said complex object is constituted of a plurality of objects which can be invoked in a manner equivalent to a function call which does not cause context switch.

--13. (Amended) [A] The data communication apparatus according to Claim 11, further comprising (c) means for creating a history of message [communication] communications by the object within said complex object,

wherein said [means] (b) means for sending determines whether said complex object and said independent object have entered said predetermined relationship based on said history of message [communication] communications.

--14. (Amended) [A] The data communication apparatus according to Claim 11, further comprising (c) means for creating a history of

message [communication] communications by the object within said complex object,

wherein said [means] (b) means for sending sends the one or more stored messages in a single operation [if] when said history of message [communication] communications is indicative of a message communication from a different execution thread when the object within said complex object exits execution.

--15. (Amended) [A] The data communication apparatus according to Claim 11, wherein said [means] (a) means for temporarily storing controls message storing in accordance with a relationship between said complex object and said independent object.

--16. (Amended) [A] The data communication apparatus according to Claim 11, wherein said [means] (a) means for temporarily storing controls message storing in accordance with [the] a status of said independent object.

--17. (Amended) [A] The data communication apparatus according to Claim 11, wherein said [means] (a) means for temporarily storing controls message storing on a destination-by-destination basis [if] when the one or more stored messages are directed from the object within said complex object to a plurality of independent objects external to said complex object.

--18. (Amended) [A] The data communication apparatus according to Claim 11, further comprising (d) means for determining whether to store or immediately send the one or more stored messages in accordance with a relationship between said complex object, which sends the one or more messages, and said independent object, which receives the one or more stored messages, with respect to a

scheduling priority level and an interrupt priority level of the respective execution threads thereof.

--19. (Amended) [A] The data communication apparatus according to Claim 11, wherein said system constituted of a plurality of objects is an object-oriented operating system constituted of a plurality of concurrent objects.

--20. (Amended) [A] The data communication apparatus according to Claim 11, wherein said system constituted of a plurality of objects is one of an application program [or] and a device driver constituted of a plurality of concurrent objects.